inner side of its right foreleg, there was a big abscess about a foot in diameter with plenty of maggots in it. It is not understood as to how it got that wound though undoubtedly it was the one which

nettled its temper most.

This animal during some months previous to its death had become a perfect terror to the neighbourhood, chasing people, robbing paddy from the fields and barns in the Umsaw and other adjacent villages, and, on the evening previous to its death, went close to the village of Mawlein where it attacked a 'Khuti-walla's' shed, drove out the buffaloes and their keepers, and killed one calf by goring it with its tusk. The rogue had a good drink of whey kept in a wooden barrel and upset the barrel when it no longer wanted it. Then it went to have a taste of ghee kept in kerosine oil tins but finding it not to its liking knocked down the tins and their contents and, before leaving

the place, pulled down the shed and trampled over it.

On the following day, I tracked this animal from the last scene of his depredations and within a mile in the forest suddenly heard the shrill alarm raised by it. By the time I knew whence the sound proceeded, the big rogue was advancing towards me with the speed of a locomotive engine. Knowing that elephants, though they have a very keen sense of hearing and smell, have got a very poor eye-sight, I stood still (my guides had already deserted me) until the animal was only about 30 yards or so from me, then I moved towards its right side, about ten yards from its direct line of advance. The animal stopped for a moment when it reached the spot where he scented or knew that I was, and during that short interval I put in one temple shot which brought him right down and there ended the career of one of the troublesome rogues of that locality.

The animal measured 10' 8" from the shoulder and the circumference of its fore foot was 5'  $3\frac{1}{2}$ ". The length of the tusks was 5' 4", each; the girth at their thickest portion was  $17\frac{3}{2}$ " and both

tipped the scale at 96 lbs.

SHILLONG, ASSAM, 17th July, 1931.

L. L. READE.

## X.—THE MIGRATION OF THE PARADISE FLYCATCHER (TCHITREA PARADISI)

During the last two or three years a variety of articles in the *Journal* have made it very clear that our present knowledge of the migration of Indian birds is far from complete. The Bombay Natural History Society's ringing scheme has already done something, and will in the future undoubtedly do more, to increase our knowledge. But the number of species on which ringing can be practised is strictly limited, and some other method must also be adopted if we are ever to have anything like a complete knowledge of the movements of the smaller migrants.

In the past, observation on the migration of birds has largely been observation at certain specially favoured points. Observation of

this type has produced such books as Gatke's 'Heligoland', and Eagle Clarke's 'Studies in Bird Migration'. The information that has been obtained in that way is very valuable, but there is another method of approaching the subject which has the great advantage that it begins with the assumption that the problems of migration may differ considerably in different species. That method is to collect all possible records of migration, species by species. An illustration of that method is to be found in Mr. Hugh Whistler's article 'The Migration of the Pied Crested Cuckoo (Clamator jacobinus)'. (J.B.N.H.S., vol. xxxiii, pp. 136 to 145).

The purposes of the present article are (1) to point out some of the contradictory statements that have been made about the migration of the Paradise Flycatcher (*Tchitrea paradisi*); (2) to record the small amount of information the writer has been able to record on the subject from his own observation; and (3) to endeavour to interest members of the Society in helping by their observa-

tions to clear up the status of this very familiar bird.

All that the Fauna of British India (Second Edition) has to say about the subject is—'The Paradise Flycatcher is a resident bird wherever found, but moves about locally in parts of its habitat, probably on account of food-conditions.' (Fauna of British India: Birds, vol. ii, p. 267). Similar statements are made in the 'Fauna' about several other species, but, as no definition is given of the difference between 'migration' and 'local movement', they are not

very helpful.

In 'Nests and Eggs of Indian Birds', (Second Edition, vol. ii, pp. 22–26), it is stated that this species breeds 'Throughout the exterior ranges of the Himalayas up to an elevation of 5,500 feet: at any rate from Nepal to Afghanistan', also at Almora, Kotegurh, the Sutlej Valley, Sooltanpoor, and the Valley of the Beas, and Kashmir it is common.' Other places where, according to the same book, the species has been recorded as breeding, are the Doon, Terai, northern portions of Rohilcund and Oudh, wooded portions of Jhansi, Saugor, Nimar, Raipur,' and 'doubtless other portions of the Central Provinces', also the Agrore Valley, Barreilly, Calcutta Botanical Gardens, Delhi, Murree, Kashmir, Rajputana, Baroda, Mysore and Ceylon.

Whistler states ('Popular Handbook of Indian Birds', pp. 99, 100):—'Very little is known of the status and habits of this common and widely-spread bird, but it is undoubtedly migratory to a large extent. In the North-Western Himalayas and Salt Range, it is a summer visitor, only arriving about March and April and departing about September: while in most of the Punjab it is only a passage migrant in those months. To Sind it is a scarce winter visitor; while

in many localities it is undoubtedly a resident.'

Since the first and third of the above summaries are mutually contradictory, and the second, which does not in the main deal with migration, certainly does not support the first, it will be well to collect a number of observations on the bird in various districts.

Beginning from the north-west, Capt. R. H. Rattray, writing of the species at Kohat, states: 'This bird breeds here fairly plentifully'. (*J.B.N.H.S.*, vol. x, p. 628).

The following note on the status of the Paradise Flycatcher at Peshawar occurs in vol. xxxii of the Journal (p. 750); 'A few breed in the Valley, as Briggs found a female feeding three young in trees overhanging the Grand Trunk Road, eight miles east of Peshawar on June 20, 1923. It is, however, a passage migrant in spring and autumn. Briggs states that they pass through in large numbers, but appear to stop only one day. That day falls, as far as his observations go, between April 23 and 29 in the spring, and between September 19 and 29 in the autumn. The race has not been identified.'

In 'Notes on the Birds of Thandiani' (J.B.N.H.S., vol. xviii, p. 290), Major H. A. F. Magrath states: 'On July 9, I saw a female Paradise Flycatcher hawking dragonflies near the waterfalls on the Sufed Pani stream above Kala Pani.' In July 1921, I saw an adult male of the species between the falls mentioned above and Thandiani. It was the only occasion on which I saw the species in that neighbourhood.

I have found the species breeding in considerable numbers near

Murree, chiefly about 5,000 feet.

In Kashmir the Paradise Flycatcher is one of the most familiar

birds in the summer.

Whistler states (J.B.N.H.S., vol. xxviii, p. 997): 'Except for an adult male seen on April 6, no Paradise Flycatcher was seen until April 14. After that date the species was common about Srinagar till my departure and I saw several about the road on my downward journey.'

Referring also to Kashmir B. B. Osmasten states (J. B. N. H. S., vol. xxxi, p. 988) that the species is common in the Vale of Kashmir in summer, ascending the hills to about 6,000 feet; that it arrives about the middle of April, leaves about the middle of October,

and breeds in May and June.

Whistler states that the species is common in the Kulu Valley up to a height of about 5,000 ft. adding: '... of course only as a summer visitor.'

Leaving the hills for the plains of the Punjab, we find that Dewar states that the species 'visits the Punjab in great numbers in summer for nesting purposes'; (Indian Birds, p. 124); and that 'in Lahore this species nests in considerable numbers along the well-wooded banks of the Ravi.'

The following is a quotation from 'A Contribution to the Ornithology of Delhi' (J. B. N. H. S., vol. xxxi, p. 268), by S. Basil-Edwardes: 'Terpsiphone paradisi paradisi (L)(The Indian Paradise Flycatcher). I did not see this species, and it had not arrived before I left Delhi. (Eggs taken by Bingham. Seven nests on May 27, and June 12.')

F. Field, writing of the Gonda District, U. P., and referring to the breeding of the species, says:—'In forests and plains, but more common in forests. May, June.' (J.B.N.H.S., vol. xxviii, p. 757.)
In an article entitled 'A Description of the Nests and Eggs of

In an article entitled 'A Description of the Nests and Eggs of the Common Birds occurring in the Plains of the United Provinces', (J. B. N. H. S., vol. xxix, p. 343), E. H. N. Gill states: 'During the winter months this attractive bird occurs in most districts and is

frequently met with in gardens and groves adjoining human dwellings. Unfortunately, the bulk seem to migrate in summer to the Sub-Himalayan tracts, but a great many remain behind and breed sparingly throughout the plains. I have found eggs as regularly in the Eastern as in the Western Districts.'

In the Ghazipur District of the U. P., the species appears to occur as a passage migrant and a summer visitor. Perhaps a rains visitor would be a better description, as they do not seem to be established till the middle of June. In 1930 all seemed to have left by September 17, but on October 3 and 13, single birds were seen, and a pair on October 17. This year (1931), from the middle of April till the middle of June, occasional birds were seen, often with a gap of several days when none were to be seen. Presumably these were passage migrants, as I believe those seen in October last year were.

In 'Birds of an Indian Garden' by T. Bainbridge Fletcher and C. M. Inglis, (p. 60), the following note on the species in Bihar occurs: 'In North Bihar,.....it arrives about the end of March and leaves at the end of October, not being noticed during the cold weather. It is fairly common locally in Bihar, but its distribution seems to be

rather erratic: for example, I have never seen one at Pusa.'

In the neighbourhood of Mhow (Central India), the Paradise Flycatcher breeds in the Vindhya Hills, and occurs on the Malwa Plateau as a passage migrant. Whether it is resident in the Vindhya Hills or only a summer visitor I am uncertain, but I did not observe it there between October 12 and March 27.

Cunningham, in 'Some Indian Friends and Acquaintances,' (p. 123), says of this species:—'They are not very common inmates of gardens about Calcutta, but stray specimens may be met with at almost every time of the year, and, at the beginning of summer, small parties of them, apparently in quest of good sites for nests, often visit quiet areas, such as those afforded by the more secluded parts of the Botanic Gardens. Such parties include birds of both sexes, some of the males being in all the splendour of fully developed trains and mature black and white colouring, whilst others have trains of chestnut or are still feathered like the females. At all other times of the year it is very rare to see any but short-tailed, chestnut and black birds.

'Eha' states ('The Common Birds of Bombay', p. 77'.....every-body who has roamed about Matheran or Mahableshwar must be familiar with it, but I dare say some will be surprised to hear that it is a Bombay bird......I believe that the Paradise Flycatcher only visits us for a short time during the cold season. I have never heard of its nest being found on this island.'

Lastly, Mr. George Brown includes this species in a list of birds seen on a trip from Pottuvil to Kumna, Ceylon, between April 10 and

21. (J.B.N.H.S., vol. xxxiv, pp. 815 ff.)

From the above extracts it would appear that, far from being 'a resident bird wherever found', (Fauna), it is mainly, if not entirely, a migratory species. Its breeding area, however, does not seem to have been very clearly defined so far, and its winter quarters seem still more vague. In addition to this there are certain contradictions amongst the statements quoted above.

The species appears to breed through a large part of the Himalayas at comparatively low levels. Presumably all these records refer to the sub-species leucogaster. South of the Himalayas they breed sparingly in the N.-W.F.P., but are recorded only near Lahore in the Punjab. They have been recorded as breeding at Delhi, and are regular breeders in the United Provinces. As it is recorded as a summer visitor to parts of Bihar, it is fair to assume that it breeds there. 'Nests and eggs' records it as having bred in the Botanical Gardens, Calcutta, but Cunningham's references to the species appear to point it out as mainly a passage migrant at Calcutta. Further south it appears to breed in various parts of the hilly country of Central India. It is also reported as breeding in Rajputana, Baroda and Mysore.

Referring to the winter area of the species only two places are mentioned—Sind and Bombay. Whether 'Eha's' reference is meant to apply only to Bombay or whether it also applies to

Mahableshwar and Matheran is uncertain. 1

The only contradictory statements that need to be mentioned here are those of Mr. Gill and myself. It would be interesting to know to what districts of the U. P. the former is referring. In the Ghazipur, Benares, and Azamgarh Districts, the Paradise Flycatcher certainly does not occur in the winter, and I have been told by reliable observers that the same is true of the Fyzabad District. What makes Mr. Gill's statement more surprising is that he spent some time in the Ghazipur District. Is it possible that in some years the species winters in the United Provinces and that in other years it does not?

In any case, enough has probably been said to prove that our present knowledge of the species is far from complete. If every member of the Bombay Natural History Society would note the status of the Paradise Flycatcher in his own area and send that information to someone capable of dealing with it, more might be learned of its movements. The same is true of many other familiar species, but the Paradise Flycatcher is a good bird to begin on, because it is so conspicuous that it cannot be overlooked. Unless someone better qualified is prepared to undertake the task of collating such information as may come to hand in that way, I am quite ready to do so myself, and shall be grateful to anyone who will correspond with me on the subject. One point to be noticed is that, although the distribution of the Paradise Flycatcher is given as the whole of India, there seems to be a great paucity of information from the south. A second point is that, although sub-specific identifications are useful, notes are also useful where the sub-species is doubtful, and that sub-specific identifications which are not supported by specimens are more likely

<sup>1 &#</sup>x27;Eha's' reference applies, we believe, to Bombay where the Paradise Flycatcher has been observed occasionally during the cold weather. It has been noted in Bandra, at the foot of Trombay and in the wooded portions of Salsette during this time of the year. In Matheran and Mahableshwar, the Paradise Flycatcher is common during the cold weather and less so during April, May, though young birds have been observed during the hot season.—EDs.

to increase than to clear up the present vagueness of our knowledge of the status of the species.

Wesleyan Mission, Ghazipur, U. P., July, 1931. F. S. BRIGGS.

## XI.—SEX DIFFERENCES IN THE MIGRATION OF THE COMMON TEAL (NETTION CRECA)

It may interest you to know that while I was in Kashmir between January and February, 1930, I shot a considerable number of Common Teal. All of them with one exception were drakes. I believe that it has been noticed by other observers that the females of the Common Teal are in a large majority in early winter and later their places are taken almost entirely by drakes. This was certainly borne out by my observation.

PORTLAND PARK, ALIPUR, CALCUTTA, July 20, 1931. M. D. N. WYATT.

[Differences in migration behaviour related to sex and age have frequently come under notice. Gatke from his observations of the movements of birds at Heligoland held that adult males tended to be later in migration than the females. His view seems to be supported by the observations of Mr. Wyatt and others in reference to the autumn migration of the Common Teal into India. The behaviour of migrating birds must vary in different species and no general rule can be laid down without further confirmation.—EDS.]

## XII.—NOTES ON THE NESTING HABITS OF THE RED-VENTED BULBUL (MOLPASTES CAFER).

A pair of these birds built their nest and brought up three young just opposite the front door of a friend of mine, in the heart of the city. I. R. drew my attention to the nest, and we both watched the parent birds for a considerable time feeding their young. One interesting point resulted from our observations. It is a well-known fact that the nests of birds are seldom soiled by the excreta of the young. This cleanliness is generally attributed to the fact that the young either excrete in such a way so as to 'shoot' the excrements beyond the limits of the nest, a very common thing with the Birds of Prey, for example, or, the parent birds are responsible for cleaning the nest when leaving it after feeding the young. In the former case the excreta of the young is usually in a very liquid state, but in the latter the excreta is generally enveloped in a thin tenacious film which is not easily punctured. This facilitates its removal from the nest.